FACTORS AFFECTING INVENTORY MANAGEMENT IN MANUFACTURING INDUSTRY IN KENYA A CASE STUDY OF UNGA GROUP LIMITED

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AUGUST, 2018

DECLARATION

Declaration by the Student

This project is my original work and has not been presented for a degree in any other University

Signature…… **Date ……**

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Declaration by the Supervisor

This project has been submitted for examination with my approval as University Supervisor

Signature…… **Date ……**

Dr. Paul Machoka

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DEDICATION

I dedicate this research project tomy family membersfor the moral and financial support throughout my studies.

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ABSTRACT

This study is factors affecting inventory management in manufacturing industry in Kenya. The study had four objectives to achieve: To establish the effect of information technology on inventory management in manufacturing industry in Kenya.To find out the effect of strategic supplier partnerships on inventory management in manufacturing industry in Kenya, To assess the role of inventory record management on inventory management in manufacturing industry in Kenya.To establish how staff competence affect inventory management in manufacturing industry in Kenya.. The research design was a descriptive study. Data was collected using a questionnaire that was administered through drop and pick later method. Percentages and frequencies were used to analyze objective one and three whereas regression analysis was used to analyze the relationship between business integration and supply chain performance. The findings were presented in tables.Majority of the respondents at 81% against the minority at 19% indicated that inventory record management affects inventory management in manufacturing industry. From the study it can be concluded that inventory record management had an effect on the inventory management in manufacturing industry. indicates that majority at 92% of the total respondents said that staff competence had an effect on the inventory management in manufacturing industry while 8% of the total respondents stated that staff competence had no effect on the inventory management in manufacturing industry . The study revealed that majority of the respondents was not satisfied with the current system used.Supplier relationship management as the processwhereby the suppliers of a firm connect with the firm itself. Every company not onlyneeds to build a strong bond with customers but also with the suppliers.There is need for organizations to ensure Accuracy of records provide the management with the information which is used to ensure accountability thus the study established that Proper documentation ensures that material availability meets repair or project demand and that accuracy of inventory records Warehouse staff should be adequately equipped with appropriate qualifications, proper training & supervision, ensure adherence of stock record procedures & proper work allocation to promote effectiveness of stock record systems.

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CI	Corporate Image
EAC	East African Community
NGOs	non-government organizations
SPSS	Statistical Package for Social Sciences

DEFINITION OF TERMS

Information Technology	Information Technology (IT) is a generation that includes use of computers, Software and net connections infrastructure for helping information Processing and communication features.
Competency of staff	Competency is defined as a capability, ability or an underlying characteristic of an individual, which is casually related to effective or superior performance..
Procurement Planning	Procurement planning is the purchasing function through which organizations obtain products and services from external suppliers. A procurement plan defines and documents the details of purchases from suppliers needed for a particular department.
Strategic Supplier Partnerships	Supplier relationship management as the processwhereby the suppliers of a firm connect with the firm itself. Every company not onlyneeds to build a strong bond with customers but also with the suppliers. As in the case ofcustomer relationship management

CHAPTER ONE
INTRODUCTION OF THE STUDY

1.1Introduction

This introductory chapter maps out the background of the study, research problem to research objectives and questions. Also explores the significance of the study, scope of the study and the chapter summary.

1.2Background of the study

In today's world of intense competition fueled by globalization, increasing consumer awareness, and technological improvement, organizations that are keen towards large scale success must at all times hype its service availability as consumers can very easily divert their interests elsewhere (Sharma, 2009). Consequently, managing inventory efficiently has become an important operational weapon for products and service firms wishing to survive the competitive pressures. Most of these firms hold inventory so as to meet their customers' needs. Inventory therefore constitutes the most significant part of current assets of these firms and because of the relative largeness of inventories maintained by the firms, a considerable amount of fund is being committed to holding inventory. It thus becomes essential to deploy cutting-edge techniques to manage inventories so as to avoid lost sales, costs of changing production rates, overtime costs, sub-contracting, unnecessary cost of sales and backorder penalties during periods of peakdemand (Chen, 2005).

Inventory management has enabled firms to have adequate quantities of high quality items available to serve customer needs, while also minimize the costs of carrying inventory (Brigham &Ehrhard, 2005).However, managing these inventories in order to achieve their objectives has posed a great challenge to the firms. Many firms have not yet established how much to invest in inventories and the right inventory levels to hold so as satisfy customers. Too much inventory consumes physical space, creates a financial burden, and increases the possibility of damage, spoilage and loss. On the other hand, too little inventory often disrupts manufacturing

Inventory management has also become a fundamental part of supply chain management. Supply chain management coordinates and integrates all the supply chain activities into a seamless process. During the process, inventory holding and warehousing play an important role in supply chains. As well as being significant in terms of cost, inventory holding is important in terms of customer service since the

product is made available to the customer when needed, and warehousing being critical to the success or failure of many supply chains (Frazelle, 2002).

The interest of management in better inventory management is much more than it was a few years back. Temeng et al (2010) points out that, in the past, organizations have not treated inventory as an asset that requires management and have therefore ignored the potential savings from proper inventory management. As a result, many inventory systems have been based on arbitrary rules. Unfortunately, some organizations end up having more funds invested in inventory than necessary and are therefore not able to meet customer demands because of poor distribution of investment among inventory items. Managers, both in the public and private sector, are increasingly accepting the validity of the practices of inventory management for improving the operational performance of their undertakings.

Inventory is an accounting term for the value or quantity of raw materials, components, assemblies, consumables, work-in-progress and finished stock that are kept or stored for use as the need arises (Lysons, 2000). It is economically unsound and physically impossible to have goods arrive in a system exactly when demand for them occurs.

Without stock at hand customers would have to wait for long periods before their orders are fulfilled. Inventory is therefore vital to the successful functioning of manufacturing firms and occupies the most strategic position in the structure of working capital. To ensure organizational growth and productivity, it is important that good inventory management be practiced since a substantial share of fund is invested in a firm's inventory (Kruger, 2005). Better management of inventories would release capital for use elsewhere productively thus improving the productivity of an organization (Ghosh and Kumar, 2013)

In today global business environment which is characterized by numerous competitive pressures and sophisticated customers demanding speedy solutions, manufacturing firms are progressively turning to inventory management practices. Inventory management enables the firm to control materials used and stored in the company with the objective of providing exactly what is required where and when it is required employing a minimum of residual stock thus incurring the least possible cost (Agha,

2010). Miller (2010) reveals that the profitability of any organization directly and indirectly is affected by the inventory management system operated by that firm.

The concept of inventory management practices basically focuses on the techniques used to ensure that stock of raw materials or other supplies, work-in-progress and finished goods are kept at levels which provide maximum service levels at minimum costs (Lysons, 2000). Inventory management practices addresses two important questions of how much to order/deliver and when to order thus helping an organization become more productive and efficient than before, gravitate towards stock control, and quality control. Some of these practices include Activity Based Costing, Economic Order Quantity, Vendor Managed Inventory, Materials and Requirements Planning, Distribution Requirements Planning, Just-in-time purchasing, Barcoding, and Radio Frequency Identification.

1.1.1 Profile ofUngaGroup limited

Unga Group Limited is a Kenya-based holding company that has a majority shareholding in companies involved with the manufacture and marketing of a broad range of human nutrition, animal nutrition and animal health products. Unga Group Plc entered into a strategic investment partnership with US-based Seaboard Corporation in 2000 to form Unga Holdings Limited in which Unga Group Plc owns 65% and Seaboard Corporation 35%. Unga Holdings Limited subsidiaries include Unga Limited, Unga Farm Care (EA) Limited, Ennsvalley and Unga Millers (U) Limited. Over 90% of the company's revenue is derived from Kenya with the remainder attributed to sales in Uganda, Tanzania and Rwanda. Unga Limited, one of Kenya's oldest companies, was established in 1908 with the aim of serving the milling needs of the fledgling wheat growing industry in the Rift Valley region. The first mill was commissioned in April 1909. Subsequent expansion resulted in additional investments in Kenya, Tanzania and Uganda. Today, Unga Holdings Limited has production facilities in Nairobi, Nakuru, Eldoret, Kampala and Dar-es-Salaam. Our Vision "Nutrition for Life" will direct the Company's future growth towards a portfolio of diversified value-added products in Eastern Africa and beyond.

Unga Holdings Limited is headquartered in Nairobi with four operating subsidiaries: Unga Limited prides itself on being Kenya's oldest and still one of the largest millers, with over a century of heritage in grain milling. Unga Millers (U) Limited mills wheat

flour in Kampala and distributes a range of products from its associate companies in Kenya. Unga Farm Care (EA) Limited is the region's leading manufacturer and marketer of a broad portfolio of quality animal nutrition and health products. Ennsvalley Bakery Limited opened its doors to the public at the Karen Shopping Centre, Nairobi on the 16th June 1996 and its core business continues to be the production and marketing of premium bread, cakes, pastries and related products.

The company **VISION** is Nutrition for Life. The **MISSION**: Achieve and maintain market share leadership in provision of superior human nutrition, animal nutrition and animal health products and services for the benefits of all stakeholders within Eastern Africa. The **CORE VALUES**: We are an organisation that delivers on the expectations of our customers and other stakeholders by living these core values:- Every one of us is a leader. We take pride, set the right example and hold ourselves accountable for achieving our individual and collective goals. We take responsibility for our own success and setbacks. We celebrate success and see setbacks as an opportunity for growth. **TRUST**: We build trust and honour our commitments to one another by communicating actively and openly. The company **RESPECT**: We treat each and every person with respect and value the diversity they bring to the company.

1.2 Statement of the problem

Effective inventory flow management in supply chains is one of the key factors forsuccess. The challenge in managing inventory is to balance the supply of inventory withdemand. A firm would ideally want to have enough inventories to satisfy the demands ofits customers and avoid lost sales due to inventory stock-outs. On the other hand, the firmdoes not want to have too much inventory staying on hand because of the cost of carryinginventory. Enough but not too much is the ultimate objective (Coyle, Bardi& Langley,2013). The secret of a good inventory control system thus lies in balancing the twoobjectives to optimum advantage. Despite the benefits of inventory management,

In majority of manufacturing industries, inventory constitutes the most significant part ofcurrent assets (Songet, 2006). Manufacturing firms attain significant savings fromeffective inventory management which amounts between 50% - 60% of total costs. Apotential 6% saving on total cost through effective inventory management is achievable(Chen, 2005). In this view, the study wishes to assess the effect of

inventory managementpractices on productivity of large manufacturing firms in Nairobi, Kenya.

A number of studies have been done in the area of inventory management practices: BaiandZhong (2008) found out that inventory management is crucial for most companiesbut is especially crucial for small businesses because of their limited resources. Properinventory management enhances a firm's competitive strength and profitability due tominimized costs, and customer satisfaction. This study was not conducted on largemanufacturing firms and does not show the relationship between inventory managementpractices and the productivity of a firm. Kitheka (2010) in his study found out thatinventory management automation affects the performance of supermarkets since it leadsto improved customer service delivery levels and reduced operational costs. This studywas not on large manufacturing firms and did not show how inventory managementpractices impacts on the productivity of a firm.But this study did not research on how inventory management practices impacts on firm'sproductivity. This study therefore sought to answer the following research questions:what inventory management practices are being used in large manufacturing firms inNairobi, Kenya? Is there any relationship between inventory management practices andproductivity of large manufacturing firms in Nairobi, Kenya?

1.3 Objectives of the Study

1.3.1 General Objective

The main objective of this study was to establish the factors affecting inventory management in manufacturing industry in Kenya.

1.3.2 Specific Objectives

i. To establish the effect of information technology on inventory management in manufacturing industry in Kenya.
ii. To find out the effect of strategic supplier partnershipson inventory management in manufacturing industry in Kenya.
iii. To assess the role of inventory record management on inventory management in manufacturing industry in Kenya.

iv. To establish how staff competenceaffect inventory management in manufacturing industry in Kenya.

1.4 Research Questions

i. How does information technology affect the effectiveness of inventory management in manufacturing industry in Kenya?

ii. In what way do strategic supplier partnershipsaffect the effectiveness of inventory management in manufacturing industry in Kenya?

iii. To what extent does inventory record management affect the effectiveness of inventory management in manufacturing industry in Kenya?

iv. How much does staff competenceaffect the effectiveness of inventory management in manufacturing industry in Kenya?

1.5 Significance of the Study

1.5.1 The management Unga Group limited

The study will likely to benefit managers of Unga Group limited by providing data and information that will be not readily available to them in coming up with the effective strategies that is be used in order to be more effective and efficient in their inventory management practices**.**

1.5.2 The Government of Kenya

The study will be of great importance to the government in formulating policies and the regulations of the inventory management process, since the institution management will be informed on how the rules and regulations specification affect procurement process which will led to introduction of consistence and systematic procedures for carrying out inspection to enhance what would have been delivered within the specified standards.

1.5.3 Other Researcher

This research gives foundation data to explore further on other company and researchers who might need to do additionally look into around there. This examination will likewise encourage singular scientists to recognize holes in the flow research and do look into in these regions and would give a chance to different analysts that might be to abiding this field to characterize it better.

1.6 Scope of the Study

The study focused on factors affecting inventory management in manufacturing industry in Kenya. The researcher chose to do a study on Unga Group limited. Unga Group limited located in Industrial Area along Commercial Street. The study will involve 111 with a sample size of 47 employees at the Unga Group limited. Management and staff was the main target in the study. This study was conducted for four months from June 2018 to September 2018.

1.7 Limitations of the Study

The researcher encountered the following problems during the research of the project and used the mentioned measures so as to deal with constraints.

1.7.1 Lack of co-operation,

Some respondents might be uncooperative with the researcher because of lack of interest in the study. Most of them might claim that the study was of no importance to them therefore any need to participate. However, the researcher will overcome this challenge by explaining to the respondents the reasons as to why they should cooperate and answer the questions. One being that the research was for academic purposes only.

1.7.2 Fear of victimization

Some of the respondents especially the non-management staff might be reluctant to fill questionnaires. They might be afraid to elaborate on the explanations sought in the questionnaires because of fear of being victimized if they give negative information about the institution. However, the researcher assured the respondents their names might be kept anonymous and that the information provided would be treated with utmost confidentiality and committed for academic purpose only.

1.8Chapter Summary

This chapter contained the background of the study statement of the problem, objective of the study, research questions, justification of the study, and scope of the study and limitations of the study and lastly chapter summary.

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This chapter reviews the theoretical aspect of the study, it's the auxiliary information of the exploration and it is done to give the hypothetical record of the examination. It concentrates on the audit of past examinations on the theme of the exploration consider from a worldwide and neighborhood point of view. It likewise covers the goals of the examination recognizing the wellsprings of the data about the targets, the basic investigation of the hypothetical survey and the outline of the exploration think about.

2.1 Theoretical Review

2.1.1Theory of Constraints

The theory of constraints is a management philosophy that seeks to increase manufacturing throughput efficiency measured by sales through the identification of those processes that are constraining the manufacturing system. The difficulties in the theory of constraints are: very long lead times, large number of unfulfilled orders, high level of unnecessary inventories or lack of relevant inventories, wrong materials order, large number of emergency orders and expedition levels, lack of customers engagement, absence of control related to priority orders which implies on schedule conflicts of the resources (Goldratt, 2004). The theory emphasizes focus on effectively managing the capacity and capability of these constraints to improve productivity and this can be achieved by manufacturing firms applying appropriate inventory control practices. Theory of constraints is a methodology whose basis is applied to production for the minimization of the inventory (Cooper, 2006).

2.2.2 Lean Theory

Lean theory is an extension of ideas of just in time. The theory eliminates buffer stock and minimizes waste in production process (Green & Inman, 2005). Inventory leanness positively affects the profitability of a business firm and is the best inventory control tool. Firms that are leaner than industry average generally see positive returns to leanness (Eroglu& Hofer, 2011). The theory elaborates on how manufacturers gain flexibility in their ordering decisions, reduce the stocks of inventory held on site and eliminate inventory carrying costs. Scholarly studies indicate that companies

successfully optimize inventory through lean supply chains practices to achieve high levels of asset utilization and customer satisfaction leading to improved growth, profitability and market share (Waller, Tangari& Williams, 2008). Criticism leveled against the theory is that it can only be applicable when there is a close and long-term collaboration and sharing of information between a firm and its trading partners.

2.2.3 Stock diffusion theory

A stock diffusion theory was pioneered by Braglia, Gabbrielli and Zammori (2013) with an intention to derive the probability distribution of the stock consumption and that of the reorder time. These authors further explained that the importance of stock diffusion theory is to assess and evaluate the required inventory levels in theory and practice. There are three considerations of the stock diffusion theory: (1) storage space required; (2) how quickly inventory is sold or used; and (3) how to avoid inventory from becoming outdated before it is used. These considerations can prevent shortages and wasteful spending. In addition, the stock diffusion theory has been confirmed to lower inventory level and has a direct impact on cost savings emanating from storage costs including stock insurance premiums (Unegbu and Mohammed, 2011).

2.2. Empirical Literature Review

2.2.1Information Technology

Morgan (2009) conducted a research study in United States of America on inventory management performance to Alien Technology Corporation. That was involved with pharmaceutical products where by other companies wins to supply pharmaceutical product to the government of United States of America because of its good customer services well organized and planned. The findings revealed that Alien Technology Corporation is almost 95% efficiency on inventory management practices where by the corporation manufactures products very high volume and at a low cost. The company provides a family of Radio Frequency Identification product for a variety applications including supply chain management, logistics to improve inventory management and reduce operating costs.

In United Kingdom, (Weber and Rick, 2008) revealed that organization's goal and satisfaction are achievable within the given time limitations, however control of

inventory system which typically represents 45% to 90% of all expenses for an organization, is needed to ensure that it has the right goods on hand to avoid stock outs also to prevent shrinkage and run certain accounting, many organizations have fair enough of their limited resources, capital tied up in their major assets and inventory. Worth than that, they may have their capital tied up in the wrong kind of inventory. Inventory may be old, worn out, shop worn, obsolete, or the wrong size, or colors, or there may be an imbalance among different product lines that reduces the customer appeal and concerns of the total operation. (Stevenson, 2006) revealed that inventory management is a key operations management activity, effective inventory management is critical to the smooth operation of most businesses and their supply chains. Good inventory management has an impact on operations, marketing and finance departments. Poor inventory management hinders operations, reduces customer satisfaction and raises operating costs.

In Zimbabwe, (Lisa et al,. 2013) on their study revealed that inventory management, storage and distribution of goods to users is efficiently done for example to hospitals drugs are distributed in an efficient manner because qualified people are employed with right qualifications and experience in materials related functions and the entire system of inventory management is computerized to ensure good performance. In South Africa, (Musara, 2012) conducted a study and revealed that the majority of organizations are not applying Just In Time (JIT) inventory management principles, he added that there are challenges impeding the implementation of Just In Time (JIT) principles in the organizations, these challenges include, lack of reliable supplier networks, lack of capital and lack of knowledge of immediate financial gain among others, further more statistically significant positive correlations between the application of JIT inventory management principles and cost efficiency, quality and flexibility were found. It is therefore deduced that organizations can benefit significantly in terms of improved quality of products, increased operational, costs cuts and increased flexibility by applying the JIT inventory management principle.

In Uganda, (Namagembe, 2010) her study revealed that a significant positive relationship between information sharing and inventory management means that if chain partners implement information technologies and collaborate among each other, then inventory management could improve, also in her study revealed that a significant positive relationship between inventory management and customer

satisfaction means that in order to obtain high levels of customer satisfaction there is need for better inventory management. She further showed that significant positive relationship between information sharing and customer satisfaction which implies that increased levels of information sharing among chains partners lead to improved levels in customer satisfaction.

Information communication technology is a driving force of any firm as announced byCarter and Price (2010). To thrive in his day-to-day work, an Inventory manager requires information communication technology. Computers are the key tools of ICT which aids in stock control by ensuring that user requirements are satisfied through computation of the perfect number of stock to dispatch and stock to hold. This is achieved by computer through comparing inventory variables (stock levels, demand and delivery dates). One of the systems that permit direct communication among firms without there being any human intervention is the Electronic Data Interchange (EDI).

All the firm's movements are properly coordinated by ensuring the supplier's and customer's computers as they cross-examine one similar information, production plans and stock levels. Due to swift and speed communication, the firm attains reduction in lead times, paperwork, staff costs and higher information accuracy. Another technology used in inventory management is Electronic Point of Sale (EPOS) whose main objective is to obtain information concerning goods sold through scanning. Also EPOS system has various activities that it conducts; sends out intra- and inters- stores messages, verifies checks, charges transactions and provides instant sales reports. This allows information to buyers, risk of obsolescence is reduced as well as theft cases and stock deterioration and that not only steer to boost customer service and therefore raise financial performance of afirm Lysons, (2012).

Development of IT is increasing at a rapid pace in effort to fill gaps in the market that are identified and which promise to meet needs of users in various fields. New software and matching equipment have been developed and adapted to daily lives of people. Examples of developments in ICT tools include smartphones, tablet computers, cloud computing, fast internet speeds now in Fourth Generation (4G) stage among others. These can be adopted to fit into operations of supermarkets to increase operational efficiency. Some of the areas where ICT is applied in a business

context include linking business partners and players through network, fast generation of information and seamless decision making by multiple stakeholders.

Today, some organizations are dependent on ICT for deploying e-commerce platforms to increase business presence and link to customers, data mining where patterns can be used to guide firms to make timely decisions and simplification of tasks that otherwise could be unwieldy to manage by humans. Because businesses are dependent on ICT in improvement of service delivery, they have incorporated it into their strategic plans to give it deserved attention (Kodama, 2013). Applications of ICT are as wide as are the needs of an organization; they can range from simple point of sale unit to a whole organization where Enterprise Resource Planning system is installed to manage almost every aspect of the organization. Some of these areas include supply chain management, human resources, customer management and accounts (Duggan, 2012).

2.2.2Strategic Supplier Partnerships

When the suppliers and customers form a long-term linkage, built on precise, reciprocal concurred objectives, this was defined by Lysons and Gillingham (2013) as strategic partnering whose aim is to venture and attain global ability for a firm. Its main objective is the customers and suppliers to have good working association. Strategic supplier partnering is an idea came to be in the 1980s as a consequence of the inventory management system just- in–time (JIT) in manufacturing. As per the study by Bicheno,(2004) JIT and strategic supplier partnership have the mutual goals and objectives whichare; waste reduction, lead time condensation, product improvement and product simplicity.

In a study by Brownell, (2005) he noted that the main factor for strategic supplier partnership to flow well, orthodox communication. Due to this proper communication between customers and suppliers, it makes work more efficient and effective to run in afirm. As new technology erupt and use of all kinds of electronic communication, thestrategic supplier representatives still prevail vital. The firm should also embark on earlysupplier involvement in the design process to minimize items received being defectiveand also obsolescent.

A new feature in supplier partnership is Vendor Managed Inventory (VMI). VMI allowsspeedy attainment of inventory by the customer for the supplier maintains the

inventory on site or in a nearby location. In VMI arrangements the supplier has a responsibility forreplenishing stock falls duly on the supplier. This includes inventory counting, managingthe shipping logistics and ordering. This movement of cost which are incurred by thecustomer to the supplier works to the customer's advantage for it allows them to reducethe product's overall cost and on the other hand margins are increased. At the end of theday, a very favourable portion of the purchaser's total purchase requirements is attainedby the supplier (Loughrim, 2008).

According to Lambert (2001) he defined supplier relationship management as the processwhereby the suppliers of a firm connect with the firm itself. Every company not onlyneeds to build a strong bond with customers but also with the suppliers. As in the case ofcustomer relationship management, a company will forge close relationships with a small subset of its suppliers, and manage arm-length relationships with them. Another supplier management feature is the Product and Service Agreements (PSA). For PSA, each key supplier is the main determinant of the relationship terms between them (supplier and firm). PSA becomes non-negotiable for less key suppliers. Thus PSAs are managed and defined by supplier relationship management. When a compact central group of suppliers form a long-term relationships it forms a give-and–take situation which benefits both parties. According to Kandampully, (2013), firms no longer compete as single firms but instead as a network which should be well planned so the firms to gain competitive advantage.

2.2.3Inventory Record Management

Inventory record management means to control the flow of stocks, e.g., sales, purchasing, shipping and other related functions (Stimson, 2012). This function can be performed manually using books or electronically using software solutions often work with barcode, Radio-Frequency Identification (RFID) and wireless tracking technology to support inventory tracking and control. Such software's may include mega inventory, desktop inventory management, E Turns, windward system five, enterprise retail suite, effice Inventory, mapyourTag, retail anywhere Point-Of-Sale (POS), visual inventory control software, 3ex.net, accolent Enterprise Resource Planning (ERP), Activate, aestivate inventory, Automated Plate Scanner (APS) stock control, aseet control system and many others (News beat, 2012 Brandon, 2012).

Many studies (Bouzida, Logrippo and Mankovski, 2011) stress the importance of keeping the inventory track as a most critical factor in achieving a better inventory control in theory and practice. This is because inventory record management can allow the inventory controller to be aware of every movement in the stock, either theoretical or physical.

Jackson (2011) is of the opinion that failure to keep inventory track can increase chances of unauthorized individuals in having access to inventories, resulting in disturbance of moving the inventories in an orderly manner. This was confirmed by Atyam (2010) who is in common view with Chou et al. (2012) that failure to keep and utilize the inventory tracking systems is a cause of failure to control inventories by many public sectors. Therefore, implementing a keep track system that is accurate in reducing human errors can benefit big organizations like the manufacturing sector.

Bouzida et al. (2011) are in agreement with Kuang, Ibrahim, Udzir and Sidi (2011) that the usefulness of keeping an inventory track can be revoked and subjected to different types of constraints, among which are cardinality constraints and separation of duties. Conversely, Atyam (2010) states that to keep a track system is not efficient alone therefore limitations such as permission and bind rules must be emphasized to prevent unauthorized individuals from having access to inventories.

According to Jackson (2011), inventory is one of the most significant items of any organization and, therefore, a loss encountered on inventories must be investigated and reasons of such a loss are to be noted.

According to Umakanta and Chaitanya (2012), keeping the levels of inventory canbe attributable to the following: Minimum stock level. Minimum stock is that level of stock which should not be allowed to decrease (Joannes, 2012). This can be calculated as follows: Minimum level = Re-order level – Average usage x Normal re-order period. Re-order level. Re-order is the amount of stock that a company holds so that when the stock falls, the stock must be reordered (Singh et al., 2012: 297). Re-order level can be calculated as follows: Reorder point = S x L + J (S x R x L) where S = Usage in units per day, L = Lead time in days, R = Average number of units per order, and J = Stock out acceptance factor.

Lead time. Lead time is the time elapse between the date of placing the inventory order and the date of delivery. The need for knowing the exact lead time helps the seller to keep certain inventories to serve clients while waiting for the supplier's delivery (Liberatore, 1979: 2). Maximum stock level,maximum stock is the amount of inventory which should not be exceeded (Singh et al., 2012). This can be calculated as follows: Reorder level + Economic order quantity-(Minimum rate of usage x Minimum lead time).

According to Mohammaditabar et al. (2012), failure to keep inventory track can be attributable to the following two causes: (1) The use of complex track system A complex track system can be described as a difficult system to be acquainted with and it can result in a responsible person not understanding his/her duties. Subsequently, he or she may require assistance from other colleagues (Castejon-Limas, Ordieres-Mere, Gonzalez-Marcos and Gonzalez-Castro, 2011). There are many factors which may cause the system to be complex and this was confirmed by Birkinshaw and Heywood (2010), who identify the following reasons: Imposed complexity – includes laws; Inherent complexity – includes business policies; Designed complexity; results from choices; and Unnecessary complexity; arises from growing misalignment between the needs of the organization and the processes supporting it.

A complex track system may consist of mathematical theory or certain principles (Nelson, 2010). Therefore, it is imperative to access individual skills and ability to perform work before any realistic judgment is made on staff performance. On the same note of a complex track system, Intaher and Johanna (2012) reveal that the most common problems among officials from the South African manufacturing sector include: tracking inventory information and status; maintain schedules and work orders; procurement; compliance to municipal and legislative policies; and disposal. On the other hand, Jackson (2011) reveals that the number of people involved with inventory control can cause a complexity in the system. For example, if more than one person is involved in one task, one may take advantage to manipulate the system.

2.2.4Staff Competence

Any inbound/outbound shipment, call-off request, or put away has an attached data set. Problems arise when Inventory management in manufacturing sector cannot collaborate to compare records and all attention to the discrepancies, when desperate

Inventory management in manufacturing sector cannot automatically reconcile discrepancies, or when companies' internal business rules do not force reconciliation between packaging slips, invoices, and warehouse receipts and authorized purchase orders, then completely irreconcilable data records with glaring errors can go unexplained. Have the ordering process originate from the customer's Inventory management in manufacturing sector system, and assess it using PO collaborator (Coyle et al.2013).

According to Coyle et al (2013), this makes matching seamless data exchange, not a manual process. It also prevents shipments from leaving suppliers docks if the match is destined to fail. As a result, problem shipments never hit the docks. Inventory management in manufacturing sector are only as good as the business rules and data that drive them. Real time data validation at inventory transfer points when couples with software driven, preventive-control mechanism can go a long way toward solving costly inventory problems.

Developing staff competencies is hard work and a background in psychological studies for understanding people is useful. Business intelligence is fundamental to working with staff members in any organization a manager is not able to make sound business decision without a full picture of the situation at hand. Therefore, developing staff competency levels requires research and strategic incentives (Hamblin, 2014).

Evaluation to control which means deciding whether or not to train was worthwhile preferably in cost benefit terms and what improves are required to make it even more cost effective. Due to the increase of technological advancement, consistent training on the skills to handle all kinds of problems in an organization to achieve effective communication is important; training for inventory management in manufacturing sector is critical creating positive ethical behavior in organization. Training should be inclusive and deal with ethical matters that continue to confront inventory management in manufacturing sector practioners. Effectiveness and appropriate training can minimize chances of corrupt and unethical practices and lead to positive organization character. Training can be short term or long term but underlying factor should be the objective of creating ethical behavior of an individual or organization (Sims, 1992).

Developing staff competencies is hard work and a background in psychological studies for understanding people is useful. Business intelligence is fundamental to working with staff members in any organization a manager is not able to make sound business decision without a full picture of the situation at hand. Therefore, developing staff competency levels requires research and strategic incentives (Hamblin, 2012).

Employment competence can be enhanced in a number of ways training being a very important component. In all organization a manager is not able to make sound business decision without a full picture of the situation at hand. Training staff members is a very importance activity in support of employee's skills so as to improve the customer satisfaction. The particular perspective chosen will depend on the circumstanstances, for example, if change in the external environment of the organization are exerting pressure for change internally, then a corporate perspective need to be taken. If however, the issue is one of improving skills in a particular category of employees then that category of employees' occupational group will provide the focus for effects. Usually organization analyses training needs in response to response to operational weaknesses reported in by line managers or to meet the demands of change. The former reason suggested that there is something of a fire, fighting element in training need analysis. The later suggest that it can also be deployed as an element of planned change in the organization (Sims, 1992)

Wallenberg et al. (2006), says that, if inbound shipment is incorrectly scanned or counted, the inaccuracy follows thought the product fulfillment cycle. Symptoms of inbound problems include regular missing inventory write-off, recurring expediting shipping fee, and split invoices or shipments due to a promise to fulfill of phantom inventory. This is caused by inadequate inbound processing and lack of purchase order collaboration, lack of visibility to supplier shipment status, inability to check PO status and update quantities, lack of package-level tracking via package tracking number.

The solution here is to implement software that enables automated advanced shipping notification (ASN), and is integrated to the receiving dock. Gaining visibility to supplier's outbound shipping status and control mechanisms to account for changing PO status is also imperative, along with internet-enabled level tracking. It is also good

to institute automatic matching of packaging slip/warehouse receipt and authorized purchase order before recording a receipt, (Coyle et al, 2013).

Lysons and Farrington(2006),also says that, capturing data on labels guarantees the data on that label was recorded into your Inventory management in manufacturing sector system-but the data could be wrong. The label scanned, for example, might represent the pallet, but not the entire shipment; it may represent the entire shipment but was scanned multiple times, or could have an unreadable format. Label compliance problems incorrect data and /or labels, missing labels, missing fields, or non scan able labels are caused by lack of compliance incentives for suppliers.

When this occurs, discrepancies between the ASN and the actual shipment can go Undetected, Ackerman (2002).Without IT programs for label compliance, suppliers often would not bear the cost of managing changing labels on inbound inventory with ASNs; and ensure items shipped match items received or put away. Implement compliance label software that allows vendors and trading partners to issue labels compliant without your system (Chopra and Meindl, 2011).

The staff competency as a module provides a user-friendly way to demonstrate compliance and allows organization to progress from record holding through training planning to develop competent management, encouraging organizations to continually seek opportunities to operate or conduct business more effectively. Training staff members has positive impact on the effectiveness of communication, when one is trained on job to achieve standards is what each organization should encourage (Bentley, 2014).

Developing staff competency is handwork and a background in psychological studies for understanding people is useful. Business intelligence is a fundamental to working with staff members in any organization a manager is not able to make sound business decision without a full picture of the situation at hand. Therefore, developing staff competency levels requires research and strategic incentives. It is important to evaluate training in order to assess its effectiveness in realizing the expected outcomes and indicates areas for improvement to make it more effective. Evaluation is an integral feature of training in its simplest form is the comparison of objective criteria behavior with outcomes to answer the question of how far training has achieved its purpose.It is usually desirable to consider evaluation of training has achieved its

purpose. It is usually desirable to consider evaluation of training at the planning stage. Similarly, it is necessary to consider how information required to evaluate training should be obtained and analyzed. The process of evaluation of training is any attempt to obtain information feedback on the effects of training programs to assess the value of training in light of that information (Hamblin, 2009).

2.3 Research gaps/ critical review

The concept of inventory management has been expounded both in literature as well as from the empirical studies done on the subject area. It is evident that management of inventory has become a common practice among large manufacturing firms worldwide and this is due to the various benefits that accrue to a firm as a result of managing its inventories. Firms manage inventory to determine and maintain an optimum level investment in inventory in order to achieve required operational performance. Firms have continuously managed their inventory in order to improve their operations and meet customer demand. To meet customer demand, firms have to ensure that stock-outs are avoided without incurring high inventory costs. However, the various studies covered have not extensively delved into inventory management practices in relation to the productivity of large manufacturing firms. As a result, this study sought to explore inventory management practices in the productivity of large manufacturing firms in Nairobi, Kenya.

2.4 Summary of literature

All the firm's movements are properly coordinated by ensuring the supplier's andcustomer's computers as they cross-examine one similar information, productionplans and stock levels. Due to swift and speed communication, the firm attains reductionin lead times, paperwork, staff costs and higher information accuracy. Another technologyused in inventory management is Electronic Point of Sale (EPOS) whose main objectiveis to obtain information concerning goods sold through scanning.

The main factor for strategic supplierpartnership to flow well, orthodox communication. Due to this proper communicationbetween customers and suppliers, it makes work more efficient and effective to run in afirm. As new technology erupt and use of all kinds of electronic communication, thestrategic supplier representatives still prevail vital. The firm should also embark on earlysupplier involvement in the design process to minimize items received being defectiveand also obsolescent.

A complex track system may consist of mathematical theory or certain principles. Therefore, it is imperative to access individual skills and ability to perform work before any realistic judgment is made on staff performance. On the same note of a complex track system, the most common problems among officials from the South African manufacturing sector include: tracking inventory information and status; maintain schedules and work orders; procurement; compliance to municipal and legislative policies; and disposal. On the other hand, the number of people involved with inventory control can cause a complexity in the system. For example, if more than one person is involved in one task, one may take advantage to manipulate the system.

Developing staff competencies is hard work and a background in psychological studies for understanding people is useful. Business intelligence is fundamental to working with staff members in any organization a manager is not able to make sound business decision without a full picture of the situation at hand. Therefore, developing staff competency levels requires research and strategic incentives.

2.4 Conceptual Framework

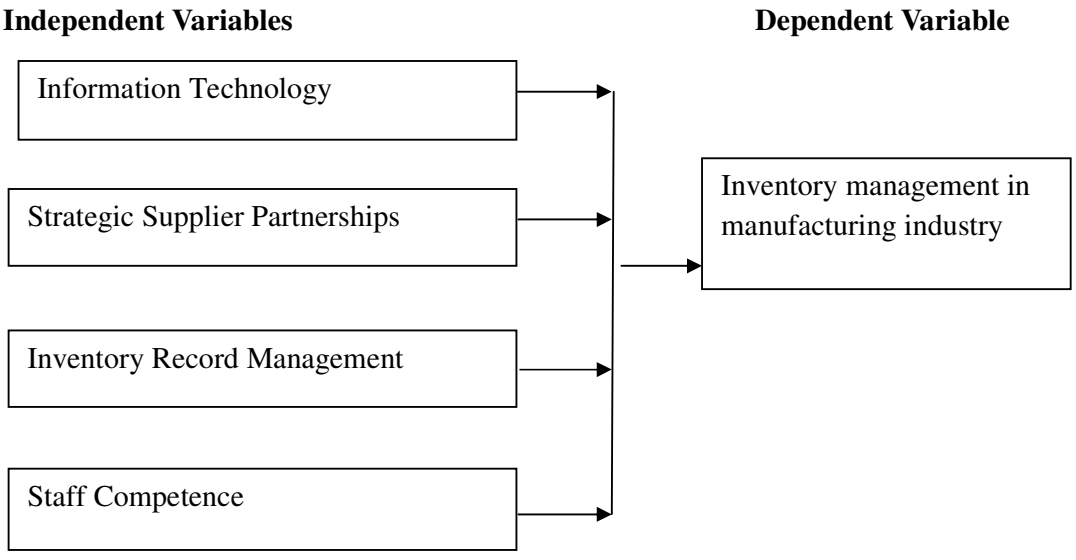


Figure 2.1 Conceptual framework

Operationalization of variables

2.5.1 Information Technology

Information Technology (IT) is a generation that includes use of computers, Software and net connections infrastructure for helping information Processing and communication features.

2.5.2 Competency of staff

Competency is defined as a capability, ability or an underlying characteristic of an individual, which is casually related to effective or superior performance..

2.5.3 Procurement Planning

Procurement planning is the purchasing function through which organizations obtain products and services from external suppliers. A procurement plan defines and documents the details of purchases from suppliers needed for a particular department.

2.5.4 Strategic Supplier Partnerships

Supplier relationship management as the processwhereby the suppliers of a firm connect with the firm itself, every company not onlyneeds to build a strong bond with customers but also with the suppliers. As in the case ofcustomer relationship management

2.6 Chapter Summary

This chapter looked into the hypothetical part of the investigation, it's the optional information of the examination and it is completed to give the hypothetical record of the examination where it had three hypotheses; theory of constraints, lean theory and stock diffusion theory. It concentrates on the survey of past examinations on the point of the exploration think about from a worldwide and nearby viewpoint. It likewise covers the destinations of the investigation recognizing the wellsprings of the data about the targets, the basic examination of the hypothetical audit and the outline of the exploration ponder.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter discusses the research methodology that was used to achieve the objectives set for this study. This included the research design, the target population sample size of the study, validity of sample, reliability, data collection instruments, data analysis technique.

3.1 Research design

The Research plan for the examination was a spellbinding report. As indicated by (Salaria, 2012) elucidating research is dedicated to the social event of data about winning conditions or circumstances with the end goal of portrayal and understanding. This sort of research technique is not just hoarding and organizing actualities but rather incorporates legitimate examination, translation, correlations, recognizable proof of patterns and connections. Chege, (2012) utilized the plan in her examination on Green store network administration practices and inventory network execution of private healing facilities in Nairobi, Kenya. This plan was regarded suitable as it enabled the analyst to reach inference on the variables influencing the adequacy of green procurement on the assembling division in Kenya

3.2 Target Population

Lyon (2015) characterizes target populace as all inclusive arrangement of the investigation of all individuals from genuine 'or speculative arrangement of individuals, occasions or questions which an agent wishes to sum up the outcome. The objective populace of the investigation for the most part got from the staff of Unga Group limited. The examination utilized target populace of 111 people.

Table 3.1 Target Population

Category	Target Population	Percentage
Top Management	4	4
Middle Management	9	9
Support Staff	98	87
Total	111	100

3.3 Sample and Sampling Technique

As per (Mugenda and Mugenda, 2012), inspecting technique alludes to a methodical procedure of choosing people to speak to the bigger gathering from which they were chosen. The analyst utilized stratified arbitrary inspecting way to deal with cover the aggregate populace. Scholars have led examine on the specimen size to help specialists in testing outline with the goal that blunder may be decreased to achieve more elevated amount of trust in the gauge Kothari, (2004) states that an example size of 30% to 45% could be considered. Subsequently the examination suggests that this investigation was test 42% of the whole populace of the representatives in the association. From the objective populace of 111 people 37% yield a specimen size of 41 respondents. A specimen is an extent of the objective populace that is illustrative of the entire populace from which it is attracted request to sum up the exploration discoveries.

Table 3.2 Sample Population

Category	Target Population	Sample population	Percentage
Top Management	4	2	4
Middle Management	9	4	9
Support Staff	98	35	87
Total	**111**	**41**	**100**

3.4 Instruments

The study used primary data which was collected with the help a structured questionnaire. The use of the primary data was to establish the effectiveness of green procurement in manufacturing industry in Nairobi. The study respondents were the Unga Group limited procurement department staff or other persons carrying the same responsibility. There was an introduction to the questionnaire explaining the study topic and the purpose of the study. Drop and pick method was used as a method of administering the questionnaire so that the respondent could fill the questions at their convenient time.

3.5 Reliability and Validity

Harper (2012) contends that for a survey to deliver helpful outcomes, it must have legitimacy and unwavering quality. On the off chance that the survey can really test what it is expected for, it alludes to legitimacy, though, unwavering quality measures the importance. To test the unwavering quality and legitimacy of the survey, a pretest was done. The poll was managed to 6 respondents not in the investigation test in order to build up whether the survey measures what it indicates to quantify.

3.6 Data Collection Procedure

As indicated by Chandran (2012), Questionnaires give a high level of information institutionalization and appropriation of summed up data among any populace. They are helpful in an unmistakable report where there is have to rapidly and effectively get data from individuals in a non-undermining way. Essential information was gathered utilizing polls which contained shut and open finished inquiries and furthermore liker-scale sort of inquiries to decide the elements influencing representative relations in the manufacturing sector.

3.7 Data Analysis and Presentation

Essential information gathered was coded and examined with the assistance of the Statistical Package for Social Sciences (SPSS). The investigation utilized graphic measurements, for example, mean scores and standard deviations. Inferential measurement like connection and relapse examination was done to build up the impacts of acquirement process on execution of region government. The outcomes were introduced utilizing tables, diagrams and outlines for simplicity of comprehension.

3.8 Ethical Considerations

3.8.1 Informed Consent

Before conducting the research the researcher did a pre visit to the organization and seek information from the organization management and the researcher was involved the management on the extent and what information the researchers seek.

3.8.2 Voluntary Participation

The research was voluntary and non of the respondent was cowered to take part in the research however the researcher took time to explain to the respondents the importance of this research to them and to the research and any participation was

highly appreciated

3.8.3 Confidentiality

All data that was collected in the organization was only for education purpose and no information was reproduced without the consent of the organization and the researcher.

3.8.4 Privacy

The respondents were assured that the information they shared was confidential and was all respondents were not allowed to give their personal details and all information was coded

3.8.5 Anonymity

An "entirely unknown" study configuration is one in which it is difficult to follow information or data back to the examination subject from whom it was acquired. At the end of the day, the information can't be recognized to a specific research member, not even by the specialist. The exploration did an aggregate division, the examination configuration required in the formation of a code connecting the subject's character to a nom de plume, the personality of the subject can be followed to the information, composed assent frame was gathered, and this agree shape must be isolated from the information that the subject gives.

3.9 Chapter Summary

This chapter focused on the research design and methodology employed to gather data for the study. In this chapter, the researcher discussed the research design, sources and type of data, sampling design, and data collection techniques and instruments as well as data collection procedures and data analysis. And the ethical consideration observed in the study.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter analyses the data collected by the researcher. The data was analyzed using descriptive statistics such as tables and charts.

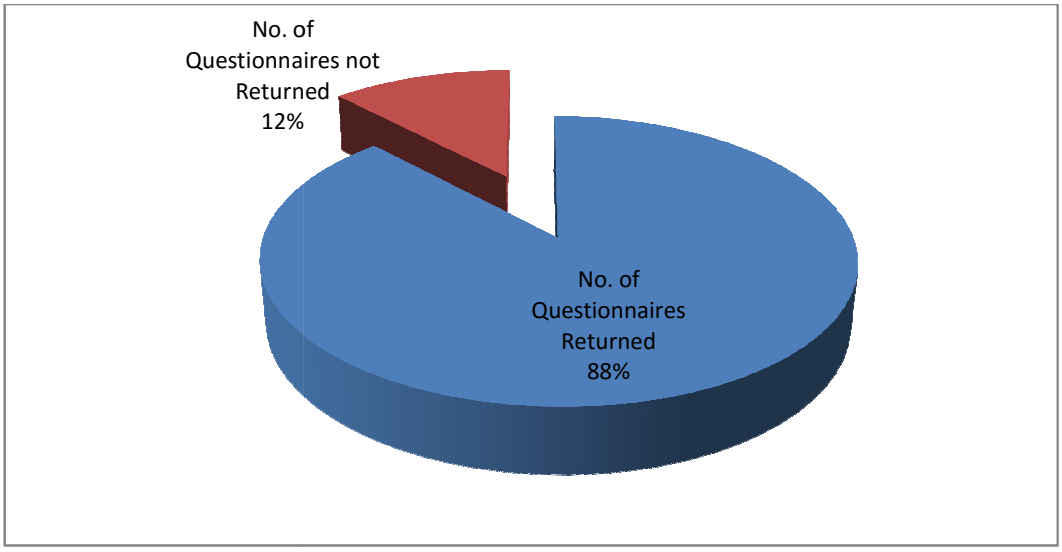
4.2 Presentation of Data Analysis

Table 4.1 Response Rate

Category	Frequency	Percentage
No. of Questionnaires Returned	36	88
No. of Questionnaires not Returned	5	12
Total	**41**	**100**

Source: Author (2018)

Fig 4.1 Response Rate



Source: Author (2018)

Table 4.1 and figure 4.1 indicate the response rate. Based on the analysis, 88% of the respondents dully filled and returned questionnaires while 12% of the total respondents did not return the questionnaires. From the analysis it can be concluded that majority of the respondents were able to participate in the study.According to Schein (1992), above 60% is an excellent response rate, 50% response rate is good while 30% is not viable

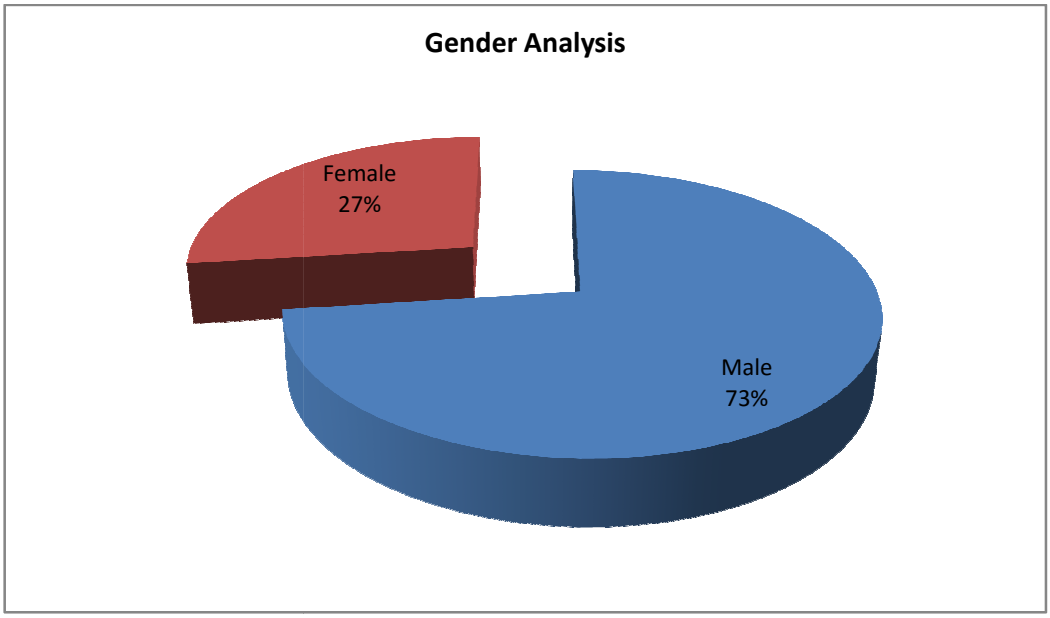
4.2.2 Gender Analysis

Table 4.2 Gender of Respondents

Category	Frequency	Percentage
Male	26	73
Female	10	27
Total	36	**100**

Source: Author (2018)

Fig 4.2 Gender of Respondents



Source: Author (2018)

Table 4.2 and figure 4.2 indicate gender analysis. These constituted 73% male respondents as compared to 27% of female respondents. This shows that male workers were the majority in the workplace.

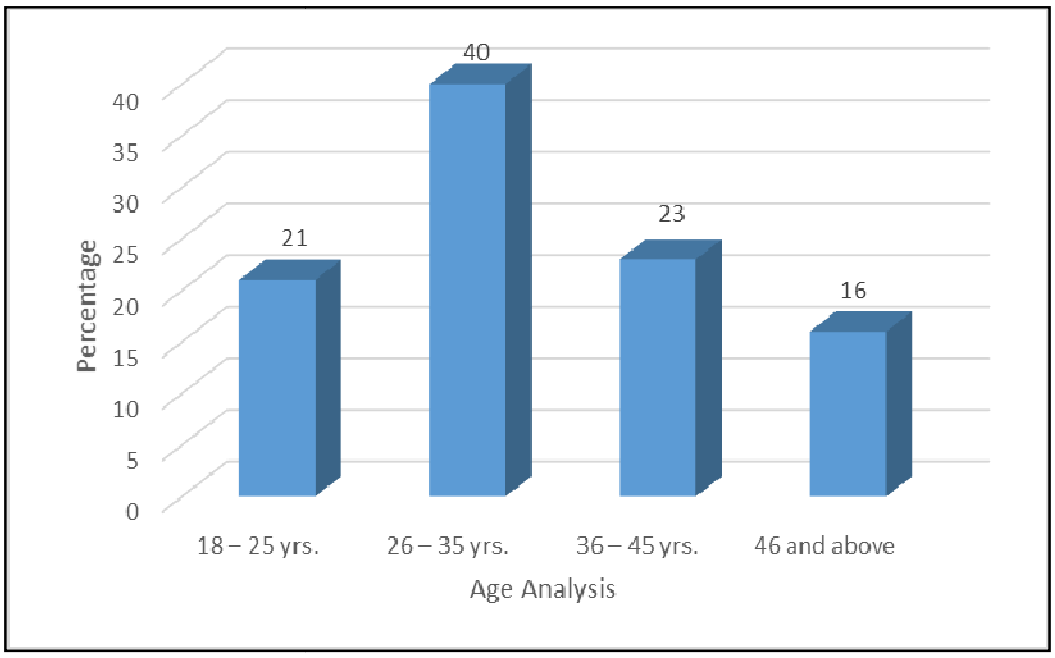
4.2.3 Age Analysis

Table 4.3 Age Analysis

Category	Frequency	Percentage
18 – 25 yrs.	6	16
26 – 35 yrs.	14	40
36 – 45 yrs.	9	23
46 and above	7	21
Total	36	**100**

Source: Author (2018)

Figure 4.3 Age Analysis



Source: Author (2018)

Table 4.3 and figure 4.3 above shows the age of respondents. Based on these, those respondents who were between the ages of 18 – 25yrs were 9 at 16%, 26 – 35yrs were 22 at 40%, 36 – 45yrs were 12 at 23% while those who were above the age of 46 yrs. were 11 at 21%. Majority of the respondents who agreed were between the ages of 26-35 years.According to Mike (2005) the age of the respondents were important as different age groups have different challenges in operating in the organization. Young

men in the organization may not be having enough experience and skills to grow the organization while aged men in the organization may be.

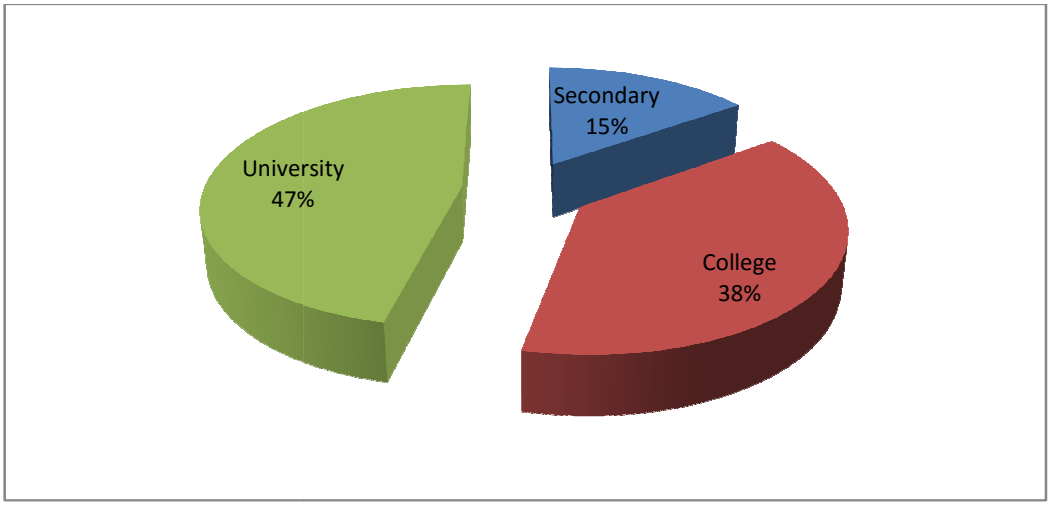
4.2.4 Highest Level of Education

Table 4.4 Highest Level of Education

Category	Frequency	Percentage
Secondary	5	15
College	14	38
University	17	46
Total	36	**100**

Source: Author (2018)

Figure 4.4 Highest Level of Education



Source: Author (2018)

Table 4.4 and figure 4.4 indicate the level of education. Based on the analysis, those who had attained secondary education were 5 at 15%, 14 of them at 38% had only attained college education while 17 of them at 46% had attained university education..These findings show that the respondents had attained different levels of education. Education levels affect the management levels hence the higher education level attained by an employee the more it is assumed that they can make better

decisions to grow the organization. This however may vary from one employee to another.

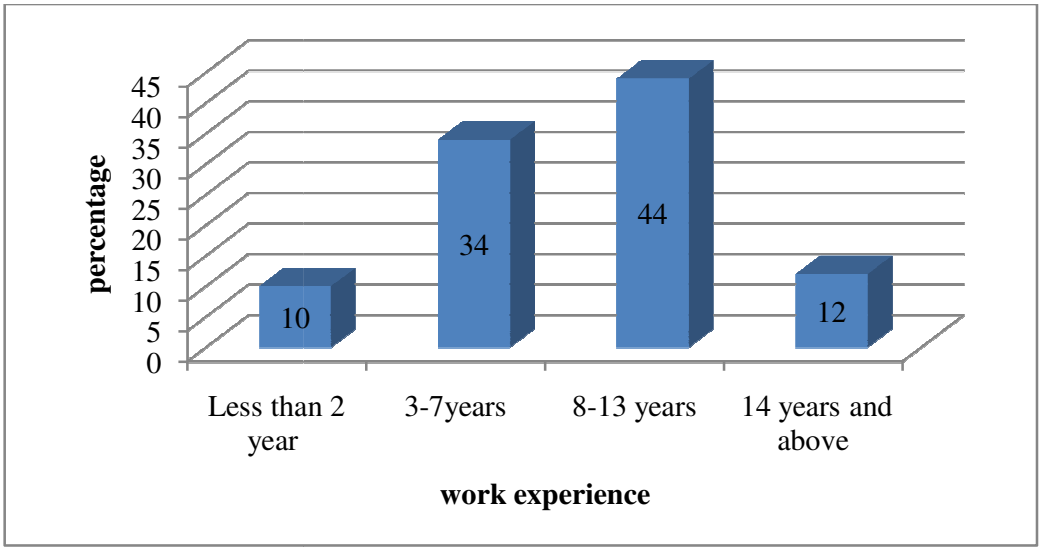
4.2.5 Work Experience in the Organization

Table 4.5 Work Experience

Category	Frequency	Percentage
Less than 2 year	4	10
3-7years	12	34
8-13 years	16	44
14 years and above	4	12
Total	36	**100**

Source: Author (2018)

Figure 4.5: Work Experience



Source: Author (2018)

Table 4.5 and figure 4.5 indicate work experience of the respondents. Based on those respondents, majority of the respondents worked for a period of 8-13 year constituting 44% and minority worked for less than 2 years were 10%. These findings show that the respondents had worked in the organization for different period ranging from less

than 2 years to more than 13 years. These findings show that the respondents had worked within the organization for a long period hence are more informed on the factors affecting inventory management in manufacturing industry.

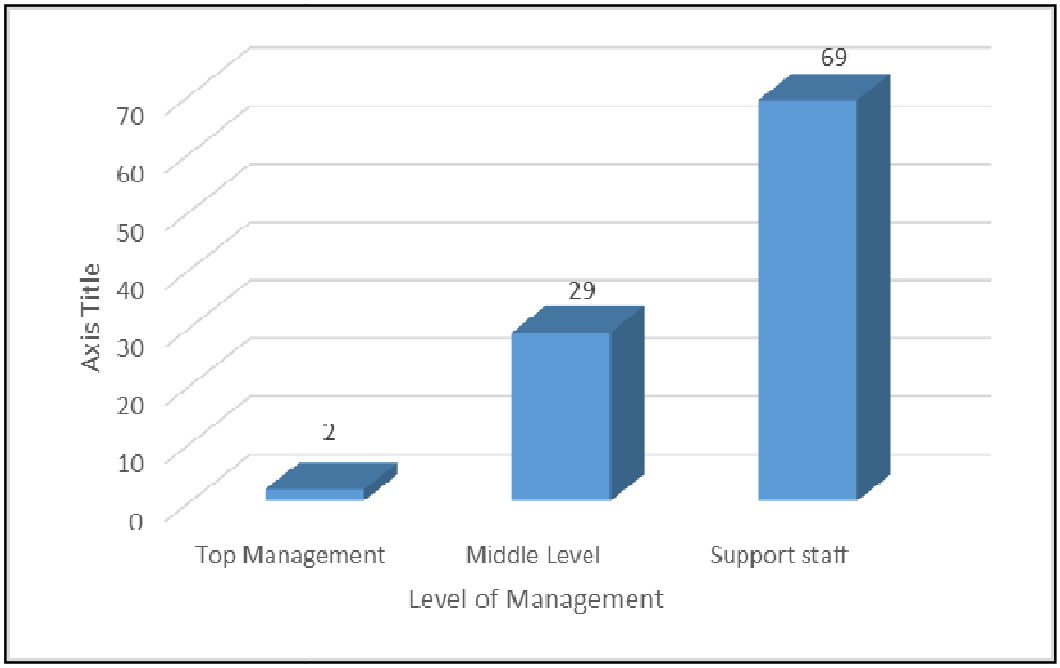
4.2.6 Respondent Category

Table 4.6 Respondent Category

Respondent Category	Frequency	Percentage
Top Management	2	2
Middle Level	10	29
Support staff	25	69
Total	36	**100**

Source: Author (2018)

Figure 4.6 Respondent Category



Source: Author (2018)

Table 4.6 and figure 4.6 indicate the various respondents category. Majority of the respondents were from the support staff with a percentage of 69% while middle level at 29% respectively and the top management at 2%. Majority of the respondents were from support level.

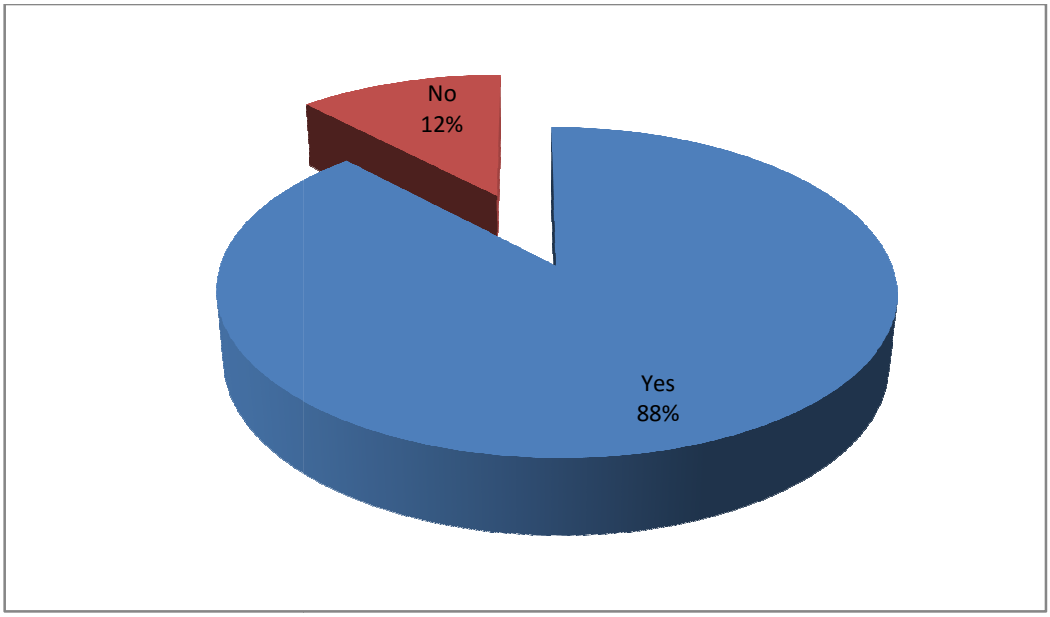
.2.7Information technology

Table 4.7 Effect of Information technologyonthe Inventory management in manufacturing industry

Category	Frequency	Percentage
Yes	32	88
No	4	12
Total	36	**100**

Source: Author (2018)

Figure 4.7 Effect of Information technologyon the Inventory management in manufacturing industry



Source: Author (2018)

Table 4.7 and figure 4.7 indicate information technology affects. Based on the analysis, 88% of the total respondents indicated that information technology affects the inventory management in manufacturing industry while 12% of the total respondents stated that information technology does not affect the inventory management in manufacturing industry. Information technology is an important determinant of inventory control success

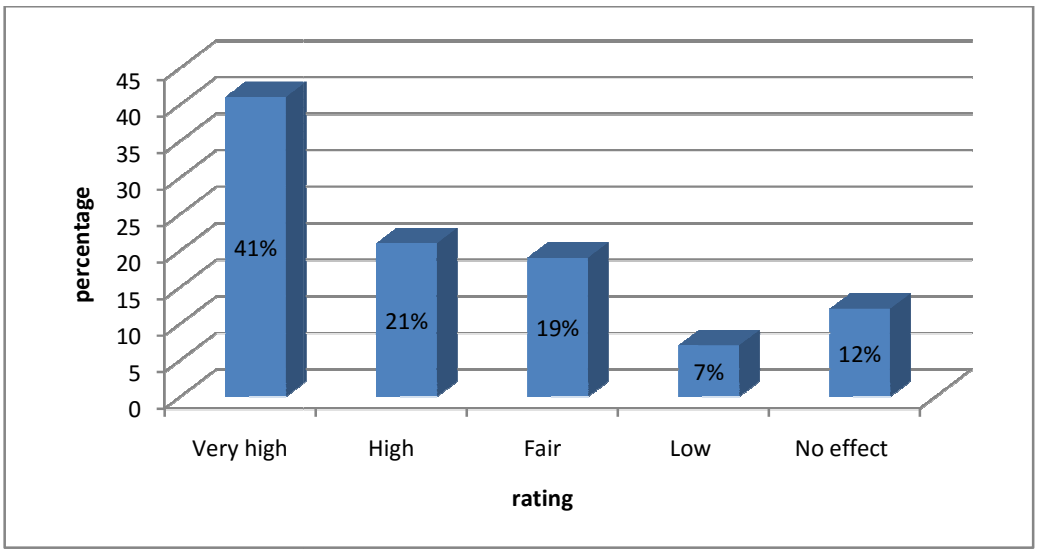
4.2.8 Information technology

Table4.8 Information technology Rating on the Inventory management in manufacturing industry

Category	Frequency	Percentage
Very high	15	41
High	8	21
Fair	7	19
Low	2	7
No effect	4	12
Total	36	**100**

Source: Author (2018)

Figure 4.8 Information technologies rating on the Inventory management in manufacturing industry



Source: Author (2018)

Table 4.8 and figure 4.8 indicates how they rated information technology on the inventory management in manufacturing industry. From the analysis 41% of the respondents rated Information technology affects inventory management in manufacturing industry in Kenya at a very high extent, 21% rated Information technology affects inventory management in manufacturing industry in Kenya to a high extent, 19% of the respondents rated Information technology affects inventory management in manufacturing industry in Kenya to a fair extent, 7% of the respondents stated Information technology affects inventory management in

manufacturing industry in Kenya to a low extent and 12% of the respondents stated Information technology does not affect inventory management in manufacturing industry in Kenya. It can be concluded that information technology affects the inventory management in manufacturing industry. This research findings concurs with There have been an increasing number of studies of IT's effect on supply chain and interorganizational relationships (Grover et al, 2002). IT appears to be an important factor for collaborative relationships. A popular belief is that IT can increases the information processing capabilities of suppliers, thereby enabling or supporting greater relationship in addition to reducing uncertainty (Subramani, 2004.). IT decreases transaction costs between buyers and suppliers and creates a more relational/cooperative governance structure, leads to closer buyer-supplier relationships (Bakos&Brynjyoolfsson, 1993) may decrease trust-based interorganizational partnerships and removes a human element in buyer-supplier interaction, while trust is built on human interaction (Carr&Smeltzer, 2002).

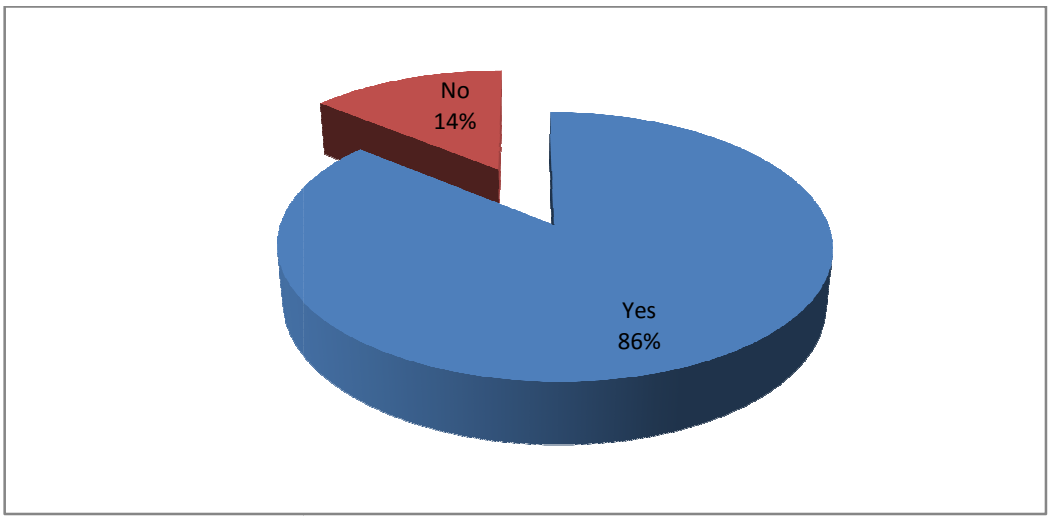
4.2.9 Strategic supplier partnerships

Table 4.9 Effect of Strategic supplier partnerships on the Inventory management in manufacturing industry

Category	Frequency	Percentage
Yes	31	86
No	5	14
Total	36	**100**

Source: Author (2018)

Figure 4.9 Effect of Strategic supplier partnerships on the Inventory management in manufacturing industry



Source: Author (2018)

Table 4.9 and figure 4.9 indicate the effect of Strategic supplier partnerships on the inventory management in manufacturing industry. Majority at 86% of the total respondents agreed that Strategic supplier partnerships affects the inventory management in manufacturing industry while 14% of the total respondents stated that Strategic supplier partnerships does not affect the inventory management in manufacturing industry . We can conclude that Strategic supplier partnerships have an effect on the inventory management in manufacturing industry.

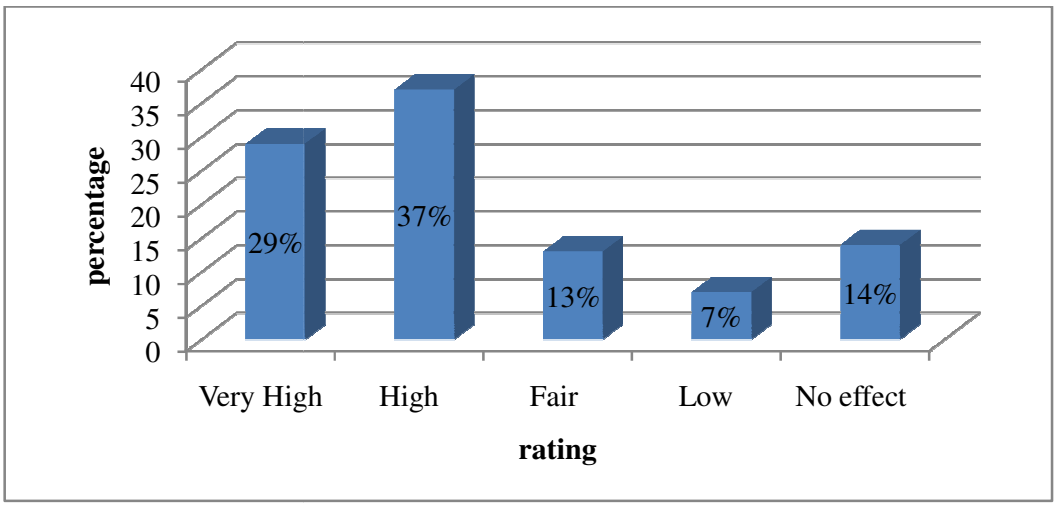
4.2.10 Strategic supplier partnerships

Table 4.10 Strategic supplier partnerships rating on the Inventory management in manufacturing industry

Category	Frequency	Percentage
Very High	11	29
High	14	37
Fair	4	13
Low	2	7
No effect	5	14
Total	**36**	**100**

Source: Author (2018)

Figure 4.10 Strategic supplier partnerships rating on the Inventory management in manufacturing industry



Source: Author (2018)

Table 4.10 and figure 4.10 indicates how they rated effect of Strategic supplier partnerships on the inventory management in manufacturing industry. represents that most respondents 29% were of the opinion that cost affects Inventory management in manufacturing industry to a very high extent, 37% of the respondents stated cost affects Inventory management in manufacturing industry to a high extent, 13% of the respondents said that cost affects Inventory management in manufacturing industry at a fair extent, 7% said cost affects Inventory management in manufacturing industry to low extent while the remaining 14% said it does not affect inventory management in manufacturing industry in Kenya. It can be concluded that majority rated Strategic supplier partnerships effect on the inventory management in manufacturing industry as high rate.

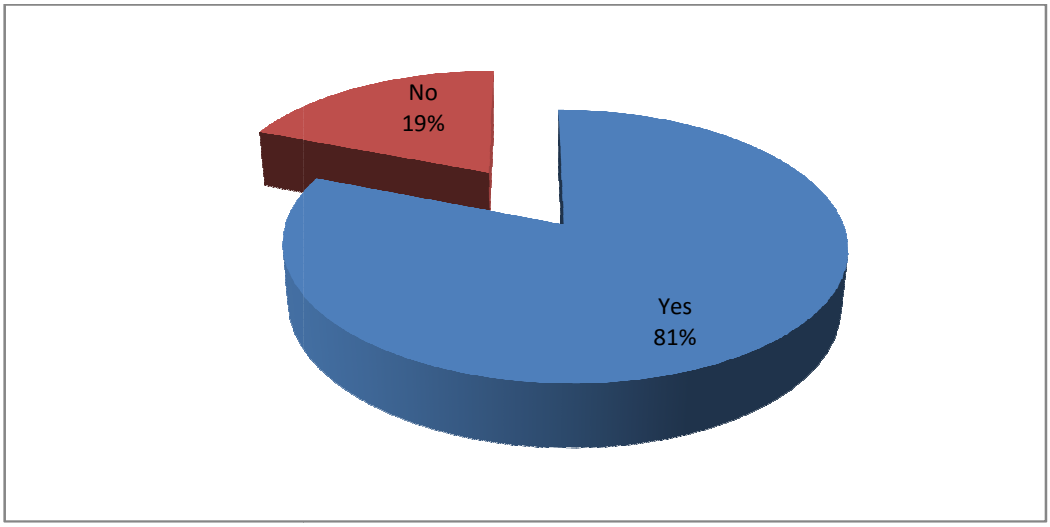
4.2.11 Inventory record management

Table 4.11 Effects of Inventory record management on the Inventory management in manufacturing industry

Category	Frequency	Percentage
Yes	29	81
No	7	19
Total	36	**100**

Source: Author (2018)

Figure 4.11 Effects of Inventory record management on the Inventory management in manufacturing industry



Source: Author (2018)

Table 4.11 and figure 4.11 indicates the effect of inventory record management on the inventory management in manufacturing industry. Majority of the respondents at 81% against the minority at 19% indicated that inventory record management affects inventory management in manufacturing industry. From the study it can be concluded that inventory record management had an effect on the inventory management in manufacturing industry.

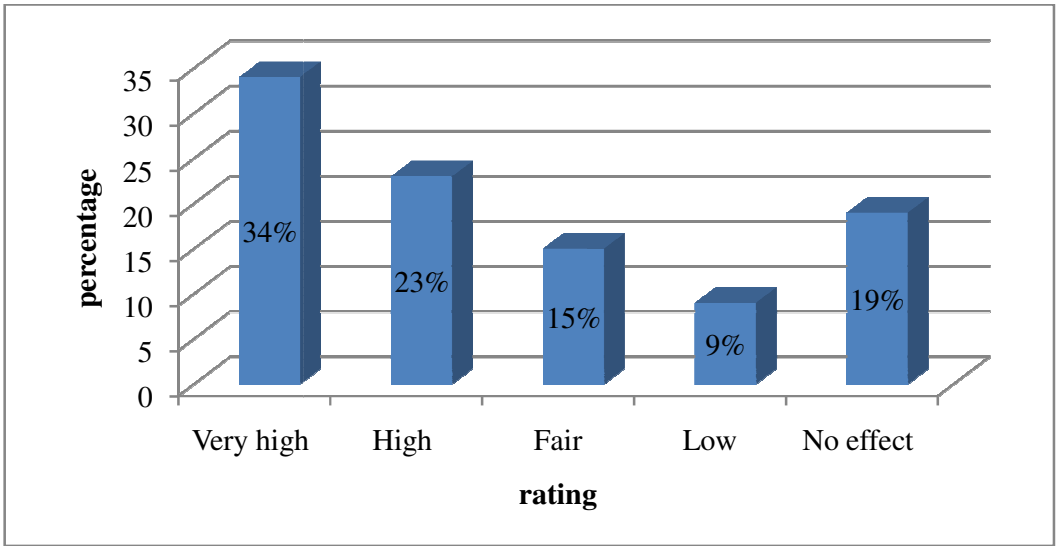
4.2.12 Inventory record management

Table 4.12 Rating of Inventory record management on the Inventory management in manufacturing industry

Category	Frequency	Percentage
Very high	12	34
High	8	23
Fair	5	15
Low	4	9
No effect	7	19
Total	36	**100**

Source: Author (2018)

Figure 4.12 Rating of inventory record management on the Inventory management in manufacturing industry



Source: Author (2018)

Table 4.12 and figure 4.12 indicates the rating of inventory record management on the inventory management in manufacturing industry. the findings showed 34% of the respondents agreed that to which inventory record management Affects inventory management in manufacturing industry in Kenyavery high, 23% of the respondents indicated that it have a high extent, 15% indicated affects at a fair extent and 9% indicated low extent, and 19% of the respondents stated inventory record management does not affectinventory management in manufacturing industry in Kenya. It can be concluded that inventory record management affects inventory management in manufacturing industry in Kenya.The above findings concurs with the findings by (Susan, 2000) according to Susan (2000), accuracy of inventory records is necessary to provide satisfactory customer service, determine replenishment of individual items; ensure that material availability meets repair or project demand, analyze inventory levels and dispose of excess inventory. Stock records also provide the management with the information which is used to ensure accountability through stocktaking and stock audit exercise.

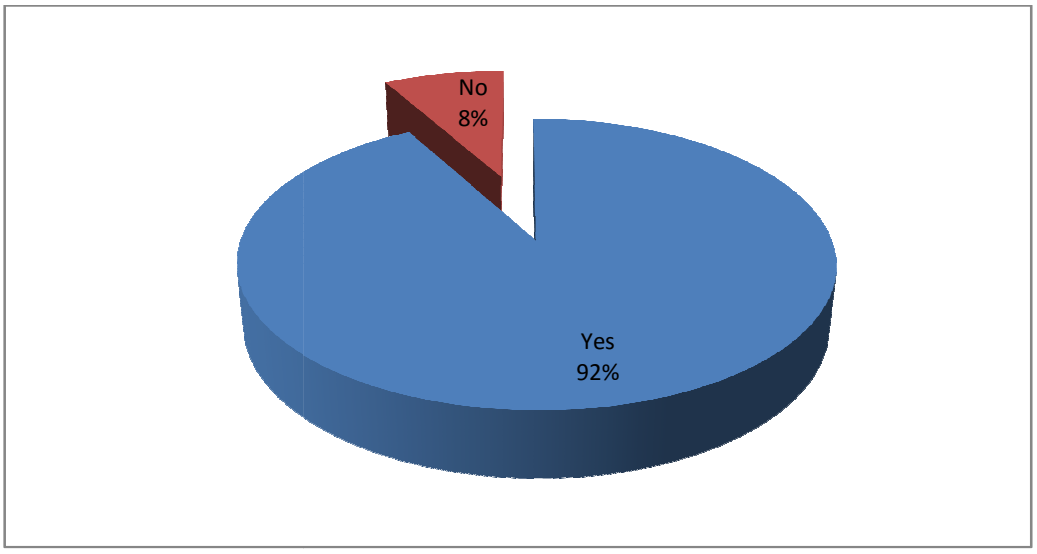
4.2.13 Staff competence

Table 4.13 Effect of Staff competence on the Inventory management in manufacturing industry

Category	Frequency	Percentage
Yes	33	92
No	3	8
Total	36	**100**

Source: Author (2018)

Figure 4.13 Effect of Staff competenceonthe Inventory management in manufacturing industry



Source: Author (2018)

Table 4.13 and figure 4.13 indicates that majority at 92% of the total respondents said that staff competence had an effect on the inventory management in manufacturing industry while 8% of the total respondents stated that staff competence had no effect on the inventory management in manufacturing industry .

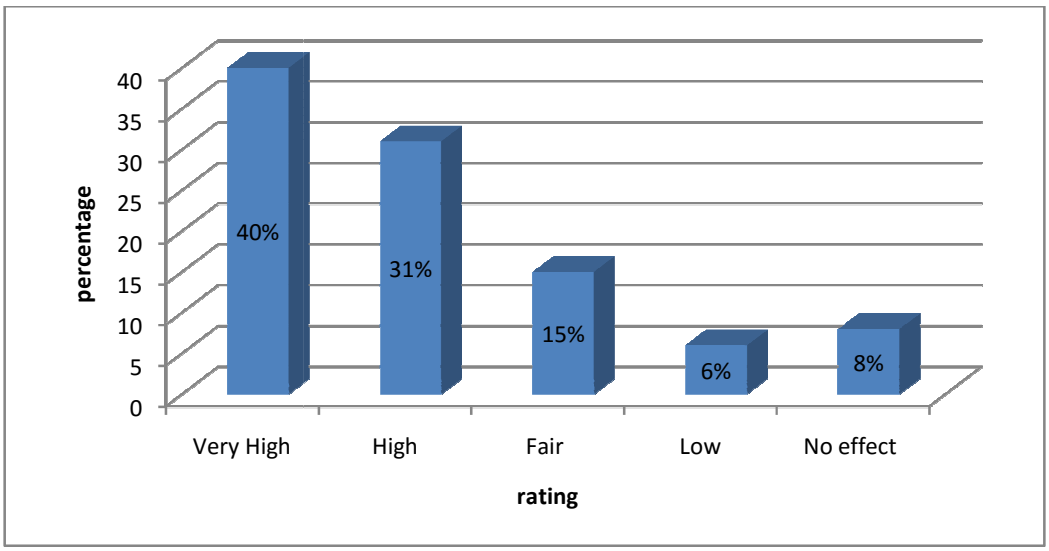
4.214 Staff competence

Table 4.14 Staff competence rating on the Inventory management in manufacturing industry

Category	Frequency	Percentage
Very High	14	40
High	11	31
Fair	6	15
Low	2	6
No effect	3	8
Total	36	**100**

Source: Author (2018)

Figure 4.14 Staff competence Rating on the Inventory management in manufacturing industry



Source: Author (2018)

Table 4.15 and figure 4.15 indicates how they rated staff competence on the inventory management in manufacturing industry. 40% of the respondents rated the influence of staff competence on inventory management in manufacturing industry in Kenya at very high extent, 31% of the respondents said that it affected high extent, while 15% of the respondents said that Staff competence affects inventory management in manufacturing industry in Kenyaat a fair extent 6% rated low, while respondents represented by 8% said Staff competence does not Influence the Staff competence

Affects inventory management in manufacturing industry in Kenya. This indicated that majority of the respondents said that Staff competence Affects inventory management in manufacturing industry in Kenya at a very high extent.The above findings concurs with the findings by (Bailey et al, 2012) according to Bailey et al (2012), for inventory management function to achieve a superior performance, it's necessary to recruit, train and develop personnel with the capacity and motivation to do better job. Training of staff is vital if full use is to be made of their abilities and talents. For an organization to succeed, qualification is therefore a prerequisite and must be matched with job requirement, hence the need to hire and develop ambitious personnel. If staff involved in inventory management is not qualified and competent, then there will be ineffectiveness in inventory management.

4.2 Limitations of Study

4.2.1 Bureaucracy

Organizations have various procedures that are outlined publicly to govern movement of people to the organization and from the organization. However some procedures are usually too tedious to the dislike of visitors/researchers. This was characterized by long procedures and regulations that were expected to be followed. Despite such challenges, the researcher was adequately prepared to abide by all the regulations so that a successful research study could be carried out.

4.2.2 Inaccessibility to the Company

The researcher had initially been denied access based on the restrictive policies against external researchers and especially private research studies. This was due to the recorded history of exploring and exposing inefficiencies in various organizations. However, the researcher overcame this challenge by using an introduction letter from Management University of Africa which showed the purpose of this study so that gaining accessibility could be achieved.

4.2.3 Lack of Cooperation

The researcher still experienced challenges on lack of cooperation. Some of the staff within this organization had reluctantly declined to participate in this research in pretence of not very genuine reasons. As a result, quite a number of respondents would have failed to provide the data. However, to counter this challenge, the

researcher had to assure the respondents that this study was only covering the academic goals.

4.3 Chapter Summary

This chapter was about data analysis. The chapter first introduces information about information from the respondents in terms, gender of Respondents, Years of work experience of respondents and Education Level of Respondents. The chapter was further categorized in to quantitative analysis that revolved around discussing the objectives of the study, The chapter also addressed the limitations of the study.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This section presents the findings, conclusion, recommendations and suggestion for further studies that are based on the factors that affect the inventory management in manufacturing industry.

5.2 Summary of Findings

5.2.1 What is the effect of Information technology onthe Inventory management in manufacturing industry?

The study analysis 41% of the respondents rated Information technology affects inventory management in manufacturing industry in Kenya at a very high extent, 21% rated Information technology affects inventory management in manufacturing industry in Kenya to a high extent, 19% of the respondents rated Information technology affects inventory management in manufacturing industry in Kenya to a fair extent, 7% of the respondents stated Information technology affects inventory management in manufacturing industry in Kenya to a low extent and 12% of the respondents stated Information technology does not affect inventory management in manufacturing industry in Kenya. It can be concluded that information technology affects the inventory management in manufacturing industry.

5.2.2 What extent do Strategic supplier partnerships affect the Inventory management in manufacturing industry?

The findings indicate how they rated effect of Strategic supplier partnerships on the inventory management in manufacturing industry. represents that most respondents 29% were of the opinion that cost affects Inventory management in manufacturing industry to a very high extent, 37% of the respondents stated cost affects Inventory management in manufacturing industry to a high extent, 13% of the respondents said that cost affects Inventory management in manufacturing industry at a fair extent, 7% said cost affects Inventory management in manufacturing industry to low extent while the remaining 14% said it does not affect inventory management in manufacturing industry in Kenya. It can be concluded that majority rated Strategic

supplier partnerships effect on the inventory management in manufacturing industry as high rate.

5.2.3 What extent does Inventory record management affect the Inventory management in manufacturing industry?

The findings showed 34% of the respondents agreed that to which inventory record management Affects inventory management in manufacturing industry in Kenya very high, 23% of the respondents indicated that it have a high extent, 15% indicated affects at a fair extent and 9% indicated low extent, and 19% of the respondents stated inventory record management does not affect inventory management in manufacturing industry in Kenya. It can be concluded that inventory record management affects inventory management in manufacturing industry in Kenya. The above findings concurs with the findings by (Susan, 2000) according to Susan (2000), accuracy of inventory records is necessary to provide satisfactory customer service, determine replenishment of individual items; ensure that material availability meets repair or project demand, analyze inventory levels and dispose of excess inventory. Stock records also provide the management with the information which is used to ensure accountability through stocktaking and stock audit exercise.

5.2.4Does Staff competence affectsthe Inventory management in manufacturing industry?

Based on the analysis of findings 40% of the respondents rated the influence of staff competence on inventory management in manufacturing industry in Kenya at very high extent, 31% of the respondents said that it affected high extent, while 15% of the respondents said that Staff competence affects inventory management in manufacturing industry in Kenyaat a fair extent 6% rated low, while respondents represented by 8% said Staff competence does not Influence the Staff competence Affects inventory management in manufacturing industry in Kenya. This indicated that majority of the respondents said that Staff competence Affects inventory management in manufacturing industry in Kenya at a very high extent.The above findings concurs with the findings by (Bailey et al, 2012) according to Bailey et al (2012), for inventory management function to achieve a superior performance, it's necessary to recruit, train and develop personnel with the capacity and motivation to do better job. Training of staff is vital if full use is to be made of their abilities and

talents. For an organization to succeed, qualification is therefore a prerequisite and must be matched with job requirement, hence the need to hire and develop ambitious personnel. If staff involved in inventory management is not qualified and competent, then there will be ineffectiveness in inventory management.

5.3 Conclusions

Information technology is an important determinant of inventory control success. It can be concluded that information technology affects the inventory management in manufacturing industry. If staff involved in inventory control is not qualified and competent, then there was ineffectiveness in inventory control. Inventory control function to achieve a superior performance, it's necessary to recruit, train and develop personnel with the capacity and motivation to do better job

We can conclude that Strategic supplier partnerships have an effect on the inventory management in manufacturing industry.It can be concluded that majority rated Strategic supplier partnerships effect on the inventory management in manufacturing industry as high rate. The EOQ model assumes that, the ordering cost isconstant, the rate of demand is constant, the lead time is fixed, the purchase price ofthe item is constant i.e. no discount is available, the replenishment is made instantaneously, the whole batch is delivered at once.

From the study it can be concluded that inventory record management had an effect on the inventory management in manufacturing industry. It can be concluded that inventory record management affects inventory management in manufacturing industry in Kenya.The study revealed that, the skills mix and experience of respondents working in the inventory control sections within theorganization showed considerable variation. In effort to determine the highest level of education, the findings reveals thatat all personnel had attended formal education but attained different level of educational qualifications. The findingsshowed that it is almost only half percentage of staff involved in inventory control function have undertaken pre/postemployment training in different aspects of inventory control. The study also revealed that post employment training was not a common means for preparing staff before deployment to inventory control sections.

From the study it can be concluded that majority of the total respondents said that staff competence had an effect on the inventory management in manufacturing

industry. This indicated that majority of the respondents said that Staff competence Affects inventory management in manufacturing industry in Kenya at a very high extent.

5.4 Recommendation of the Study

5.4.1 Information Technology

The study found that lack of a fully computerized system for posting inventory data was one of the factors that affect the effectiveness of inventory control to a great extent. The study revealed that majority of the respondents was not satisfied with the current system used. The study also revealed that lack of specific time or date for posting stores records had a direct effect on inventory control. Majority of respondents believe that poor stock record practice affects inventory control of Kenya Seed Company Poor stock recoding have a negative effect on inventory control activity.

5.4.2 Strategic Supplier Partnerships

Supplier relationship management as the process whereby the suppliers of a firm connect with the firm itself. Every company not only needs to build a strong bond with customers but also with the suppliers. As in the case of customer relationship management, a company will forge close relationships with a small subset of its suppliers, and manage arm-length relationships with them. Another supplier management feature is the product and service agreements (psa). For psa, each key supplier is the main determinant of the relationship terms between them (supplier andfirm).

5.4.3 Inventory Record Management

There is need for organizations to ensure Accuracy of records provide the management with the information which is used to ensure accountability thus the study established that Proper documentation ensures that material availability meets repair or project demand and that accuracy of inventory records is necessary to provide satisfactory customer.

5.4.4 Staff Competence

Warehouse staff should be adequately equipped with appropriate qualifications, proper training & supervision, ensure adherence of stock record procedures & proper work allocation to promote effectiveness of stock record systems. The organization should ensure that inventory control function is only handled by competent well trained supply chain officers, stock record facilities must be adequately provided and full automation of stock control systems and software availed coupled with proper integration with other areas of supply chain management to attain the benefits of perpetual stock verification system, the current inventory audit practices and procedures need to be reviewed and redesigned while a fully computerized stock record system for posting inventory control data is adopted. Also stock records practice should be complied with fully during receipt, issuing, control and recording to ensure accurate and timely inventory management information, too much cumbersome rules and reliance on rigid rules and policies that slow down procurement process should be avoided by adopting a recent technology.

5.5 Suggestions for Further Study

Despite the successes scored during the study, some factors have not been properly accounted for due to its scope. It is therefore suggested that further research should be done on some topics related to this one. In this regard, the researcher recommends further research in the following areas: How to reduce the long bureaucratic procurement procedure atUnga limited, to determine stock record practice improvement at Unga limitedand to identify therelevance of improved staff skill in inventory control at Unga limited.

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Appendix II: Questionnaire

Serial No……

The questionnaire is meant to collect information on the factors affecting inventory management in manufacturing industry in Kenyaa case study UngaGrouplimitedof Kenya. Kindly answer the questions by writing a brief statement or ticking in the boxes provided as was applicable. The information provided was treated as strictly confidential and at no instance will your name be mentioned in this research. This research is intended for an academic purpose only.

SECTION A: GENERAL INFORMATION

1. Gender Analysis

Male { }

Female { }

2. Management Level Analysis

Top Level Management { }

Middle Level Management { }

Support Staff { }

3. Years of Services Analysis

2 years and below { }

3- 5years { }

6- 8 years { }

9 - 11 years { }

Above 12 { }

4. Highest level of Education

Primary { }

Secondary { }

College { }

University { }

SECTION B: INFORMATION TECHNOLOGY

5. Doesinformation technology affect the inventory management in manufacturing industry in Kenya?

Yes ☐

No ☐

Explain……

……

……

6. To what extent does information technology affect the inventory management in manufacturing industry in Kenya?

Very high { }

High { }

Moderate { }

Low { }

Not at all { }

Briefly explain your answer……

……

……..

SECTION C: STRATEGIC SUPPLIER PARTNERSHIPS

7. Do Strategic supplier partnershipsaffect the inventory management in manufacturing industry in Kenya?

Yes ☐

No ☐

Explain……

……

……

8. How do Strategic supplier partnershipsaffect the inventory management in manufacturing industry in Kenya?

Very high { }

High { }

Moderate { }

Low { }

Not at all { }

Explain……

……

……

SECTION D: INVENTORY RECORD MANAGEMENT

9. Doesinventory record management affectthe inventory management in manufacturing industry in Kenya?

Yes ☐

No ☐

Explain……

…...……

……

10. To what extent does inventory record management affectthe inventory management in manufacturing industry in Kenya?

Very high { }

High { }

Moderate { }

Low { }

Not at all { }

Explain……
……
……..

SECTION E: STAFF COMPETENCE

11. Do staff competence affectthe inventory management in manufacturing industry in Kenya?

Yes ☐

No ☐

Explain……
……
…….....

12. To what extent does staff competenceaffect the inventory management in manufacturing industry in Kenya?

Very high { }
High { }
Moderate { }
Low { }
Not at all { }

Explain……
……
……

THANK YOU FOR YOUR COOPERATION